



Regulation

ON THE MAINTENANCE OF COMMUNICATIONS NETWORKS AND COMMUNICATIONS SERVICES, PROCEDURES AND NOTIFICATIONS IN THE EVENT OF FAULTS AND DISTURBANCES

Issued in Helsinki on 23 January 2012

The Finnish Communications Regulatory Authority (FICORA) has, under sections 129 and 72a of the Communications Market Act of 23 May 2003 (393/2003), laid down, as provided in the Act 363/2011:

Section 1

Scope of application

This Regulation applies to public communications networks and communications services as well as public authority networks. The obligations imposed on telecommunications operators also apply, as appropriate, the network operator maintaining the public authority network and the service provider offering communications services in a public authority network.

This Regulation lays down provisions in:

- chapter 1) on the management and maintenance of networks and services, management of fault and disturbance situations, management of fault reports sent by customers and management of changes;
- chapter 2) on the severity classification of faults and disturbances and on the reporting of faults and disturbances to FICORA;
- chapter 3) on notifying users of faults and disturbances; and
- chapter 4) on compiling statistics of faults and disturbances.

This Regulation's scope of application is limited to the following:

- the regulation does not apply to the temporary provision or temporary capacity of communications networks or services;
- chapters 3 and 4 do not apply to public authority networks;

- chapter 4 does not apply to the digital terrestrial television network for mobile reception;
- chapter 4 does not apply to radio operators whose authorised population coverage is less than 90 %.

The requirements in chapters 2 and 4 of this Regulation apply to mass communications services in the terrestrial mass communications network as regards the:

- television or radio broadcasting requiring a programme licence referred to in section 7 of the Act on Television and Radio Operations (744/1998); or
- television or radio broadcasting carried out by the Finnish Broadcasting Company referred to in section 7a of the Act on Television and Radio Operations and transfer, provision or distribution of related additional and ancillary services.

If the service is provided otherwise than in terrestrial mass communications networks, the requirements in chapters 2 and 4 of this Regulation apply to mass communications services as regards the:

- transfer, provision and distribution of television or radio programmes covered by the must carry obligation referred to in section 134 of the Communications Market Act (amended by 732/2010), and
- the transfer, provision and distribution of related additional and ancillary services.

Section 2

Definitions

In this regulation, *telephone service* refers to a communications service enabling a user to make and receive national and international calls and to use emergency services by means of a number or numbers specified in the national or international numbering plan.

In this regulation, *SMS service* refers to a communications service provided in the mobile network. The service enables the sending and reception of short messages containing alphanumeric characters and special characters only.

In this regulation, *internet access service* refers to a communications service enabling a user to establish an internet connection and, use the connection for accessing online services.

In this regulation, *e-mail service* refers to a service for sending, relaying and receiving e-mail messages.

In this regulation, *mass communications service* refers to the transmission or provision of television or radio programmes and related ancillary and supplementary service in a mass communication network.

In this regulation, *DVB-C network service* refers to digital cable television broadcasting services in accordance with the DVB-C (Digital Video Broadcasting, Cable) standard.

In this regulation, *other communications services* refer to communications services referred to in the Communications Market Act (393/2003) which do not fall under any other service group defined in this section.

Chapter 1

Network and service management

Section 3

Monitoring of functionality of communications networks and services

A telecommunications operator must continuously monitor the functionality of its communications networks and services, in order to detect faults and disturbances and prevent them from interfering with the operation of its communications services. A telecommunications operator must monitor the equipment facilities available to it by monitoring the alarm systems of power supply and the prevailing conditions required in Regulation 54.

A telecommunications operator must have the appropriate systems and code of practice for receiving and analysing internal and external fault and disturbance reports, software alerts, equipment alerts, equipment facility

alerts and other monitored information related to communications networks or services.

Section 4

Management of faults and disturbances

A telecommunications operator must have a distinct code of practice for the identification of faults and disturbances, minimisation of their effects and repair without undue delay. The code of practice must include definitions of responsibilities, information on the location of reserve units and equipment and guidelines for securing emergency traffic through temporary arrangements. Definitions of responsibilities must include at least the information needed to contact the maintenance staff conducting fault repair.

If fault and disturbance reports, equipment alarms and other monitored information so indicate, a telecommunications operator must be prepared to take all measures necessary to repairing class A and B faults and disturbances referred to in section 9 or minimising their effects at all hours of day.

Section 5

Management of fault reports from customers

A telecommunications operator must be prepared to receive fault reports from customers both by telephone and through an internet connection, at least as follows:

1. the person receiving fault reports at the telecommunications operator is available by telephone on working days during office hours, and
2. a fault report can be submitted through an internet connection or as a message on a telephone answering machine on all weekdays and at all hours.

The organisation responsible for fault repair must be informed of the fault or disturbance submitted by the customer on a fault report no later than one day from the time of the submission.

Section 6

Management of change

A telecommunications operator must implement network, software, hardware, configuration, interface and equipment facility changes in a controlled manner and according to plan so that the disturbance to the operation of communications networks and services is minimal. A telecommunications operator must define and document the processes and practices steering the changes.

It is obligatory for the controlled implementation of the planned measure that a sufficient amount of time is reserved for making changes and implementing maintenance and updating measures.

Section 7

Effect of changes, faults or disturbances on other telecommunications operators

The changes in communications networks and services referred to in section 6 should be implemented in such a manner that they do not disturb the communications networks or services of other telecommunications operators. If the changes affect other telecommunications operators' communications networks or services, the party responsible for the changes must inform these telecommunications operators of the effects and the parties must cooperate to make the arrangements related to changes in order to minimise the disturbances.

A telecommunications operator's network and service management must be prepared to inform other telecommunications operators of any faults and disturbances affecting the networks and services of these operators.

Chapter 2

Notifying FICORA

Section 8

Notifying FICORA of loss of functionality in network or service management

A telecommunications operator must, without undue delay, notify FICORA of any significant loss in the management ability of communications networks or services, if it is possible that a class A or B fault or disturbance referred to in section 9 may occur in a communications network or service falling within the operator's sphere of influence. The notification must be made both by e-mail and by telephone. The notification must cover the reasons for the loss as well as the measures to be taken by the telecommunications operator in order to correct the situation.

A telecommunications operator must send regular reports to FICORA on the progress of repairing the situation referred to in subsection 1, and notify FICORA both by e-mail and by telephone, without undue delay, of the correction of the significant loss.

Section 9

Severity classification of faults and disturbances

Based on their effects on communications services, faults and disturbances in public communications networks and services are categorised under four severity classes: A, B, C and D. This severity classification is defined in Tables 1 and 2.

In the public authority network, a severity classification of faults and disturbances must be drafted and documented, taking into account the network's purpose of use and user groups, and, as appropriate, the classification grounds for public communications networks and services.

Faults and disturbances in public communications networks and services are categorised in accordance with Table 1.

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Table 1. Severity classification of faults and disturbances

Severity class of a fault or disturbance	Effect of the fault or disturbance
A	<p>The fault or disturbance prevents the operation of</p> <ul style="list-style-type: none"> • a <i>telephone service</i> for $\geq 100,000$ users or • a <i>telephone service</i> in a continuous geographic area of $\geq 60\,000$ km², and the fault or disturbance affects $\geq 25\,000$ users or • an <i>internet access service</i> for $\geq 200,000$ users or • an <i>internet access service</i> in a continuous geographic area of $\geq 60\,000$ km², and the fault or disturbance affects $\geq 25\,000$ users or • a <i>SMS service</i> for $\geq 200,000$ users or • an <i>e-mail service</i> for $\geq 500,000$ users or • ≥ 500 base stations in a 2G mobile network in a continuous geographic area or • ≥ 500 base stations in a 3G mobile network in a continuous geographic area or • ≥ 500 base stations in a 4G mobile network in a continuous geographic area.
B	<p>The fault or disturbance prevents the operation of</p> <ul style="list-style-type: none"> • a <i>telephone service</i> for $\geq 10,000$ users or • a <i>telephone service</i> in a continuous geographical area of $\geq 20,000$ km² or • an <i>internet access service</i> for $\geq 50,000$ users or • an <i>internet access service</i> in a continuous geographical area of $\geq 20,000$ km² or • a <i>SMS service</i> for $\geq 50,000$ users or • an <i>e-mail service</i> for $\geq 200,000$ users or • <i>other communications services</i> for $\geq 200,000$ users or • ≥ 100 base stations in a 2G mobile network in a continuous geographic area or • ≥ 100 base stations in a 3G mobile network in a continuous geographic area or • ≥ 100 base stations in a 4G mobile network in a continuous geographic area.
C	<p>The fault or disturbance prevents the operation of</p> <ul style="list-style-type: none"> • a <i>telephone service</i> for $\geq 1,000$ users or • an <i>internet access service</i> for $\geq 1,000$ users or • a <i>SMS service</i> for $\geq 1,000$ users or • an <i>e-mail service</i> for $\geq 50,000$ users or • <i>other communications services</i> for $\geq 50,000$ users or • ≥ 10 base stations in a 2G mobile network in a continuous geographic area or • ≥ 10 base stations in a 3G mobile network in a continuous geographic area or • ≥ 10 base stations in a 4G mobile network in a continuous geographic area.
D	<p>The fault or disturbance prevents the operation of</p> <ul style="list-style-type: none"> • a <i>telephone service</i> for $< 1,000$ users or • an <i>internet access service</i> for $< 1,000$ users or • a <i>SMS service</i> for $< 1,000$ users or • < 10 base stations providing <i>wireless internet access service</i> or • an <i>e-mail service</i> for $< 50,000$ users or • <i>other communications services</i> for $< 50,000$ users or • < 10 base stations in a 2G mobile network in a continuous geographic area or • < 10 base stations in a 3G mobile network in a continuous geographic area or • < 10 base stations in a 4G mobile network in a continuous geographic area.

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Faults and disturbances in a mass communications service provided in public communications network are categorised in accordance with Table 2.

Table 2. Severity classification of faults and disturbances in a mass communications service

Effect of the fault or disturbance	Severity class of a fault or disturbance	
Radio: a user is unable to follow the broadcast, because <ul style="list-style-type: none"> • the sound quality is inadequate or sound is missing entirely, or • the transmission of emergency broadcasts through RDS is out of function. 	A	The fault affects <ul style="list-style-type: none"> • $\geq 300,000$ users or • a continuous geographical area of $\geq 60,000$ km²
	B	The fault affects <ul style="list-style-type: none"> • $\geq 100,000$ users or • \geq a continuous geographical area of $\geq 20,000$ km²
	C	The fault affects <ul style="list-style-type: none"> • $\geq 50\ 000$ users.
	D	The fault affects <ul style="list-style-type: none"> • $< 50\ 000$ users.
TV: users are unable to follow the broadcast, because <ul style="list-style-type: none"> • picture on the TV is missing or • Finnish or Swedish sound component is missing. 	A	The fault affects <ul style="list-style-type: none"> • $\geq 300,000$ users or • a continuous geographical area of $\geq 60,000$ km²
	B	The fault affects <ul style="list-style-type: none"> • $\geq 100,000$ users or • \geq a continuous geographical area of $\geq 20,000$ km²
	C	The fault affects <ul style="list-style-type: none"> • $\geq 50\ 000$ users.
	D	The fault affects <ul style="list-style-type: none"> • $< 50\ 000$ users.
TV: the user does not have access to all services available, because <ul style="list-style-type: none"> • teletext is out of function, or • Finnish or Swedish subtitles are not working, or • audio-subtitling is out of function, or • subtitles for the hearing-impaired are not working. 	B	The fault affects <ul style="list-style-type: none"> • $\geq 100,000$ users or • \geq a continuous geographical area of $\geq 20,000$ km²
	C	The fault affects <ul style="list-style-type: none"> • $\geq 50\ 000$ users.
	D	The fault affects <ul style="list-style-type: none"> • $< 50\ 000$ users.
TV: the user does not have access to all services available, because <ul style="list-style-type: none"> • EPG is out of function, or • picture and sound are out of sync. 	C	The fault affects <ul style="list-style-type: none"> • $\geq 50\ 000$ users.
	D	The fault affects <ul style="list-style-type: none"> • $< 50\ 000$ users.

Section 10

Obligation to notify FICORA of faults and disturbances

A telecommunications operator must file a report to FICORA of all faults and disturbances in communications networks or services falling into severity class A, B or C and whose continuous duration has been at least 30 minutes. The reports must be filed according to classification of faults and disturbances:

1. first incident report of a class A and B fault or disturbance (section 11)
2. follow-up report of a class A and B fault or disturbance (section 12)
3. final report of a class A, B and C fault or disturbance (section 13)

The service provider whose communications service is inaccessible by users due to a fault or disturbance is primarily obliged to notify. The network operator is primarily obliged to report of an incident in a mass communications service.

Section 11

First incident report of a class A or B fault or disturbance to FICORA

A telecommunications operator must file a first incident report of a class A or B fault or disturbance to FICORA after the incident has been discovered.

The first incident report must at least contain

1. the severity class (A or B) of the fault or disturbance;
2. an estimate of which communications network or service is affected by the fault or disturbance;
3. how the use of the communications service is affected by the fault or disturbance;
4. an estimate of the geographical effect of the fault or disturbance;
5. an estimate of how large a user group will be affected by the fault or disturbance;
6. an estimate of the effects on emergency traffic;
7. an estimate of the repair schedule;
8. a short report of the reasons in the telecommunications operator's knowledge that led to the fault or disturbance, and of the defected components of the communications networks and services; and

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9. the telecommunications operator's contact details for eventual further clarification regarding the fault or disturbance.

The first incident report of a class A fault or disturbance must be submitted both by e-mail and telephone within an hour from the discovery of the fault or disturbance.

The first incident report of a class B fault or disturbance must be submitted by e-mail or telephone within 3 hours from the discovery of the fault or disturbance.

Section 12

Follow-up report of a class A or B fault or disturbance to FICORA

If the effect of a class A or B fault or disturbance on the communications service differs substantially from the information filed on the first incident report, the telecommunications operator must, without undue delay, file a report of the change to FICORA.

The telecommunications operator must file regular reports of the progress of repair measures regarding class A or B faults or disturbances until the effects on the communications service are removed.

Unless the effect of the fault or disturbance on the operation of a communications service is not removed within three hours regarding a class A fault or disturbance, or within 12 hours regarding a class B fault or disturbance after the fault or disturbance has been discovered, the telecommunications operator must, without undue delay, submit the following to FICORA:

1. an updated estimate of the repair schedule, and
2. a detailed and grounded clarification of why the repair of the discontinued operation of a communications service is delayed.

Once the effects of the fault or disturbance on the operation of a communications service have been removed, the telecommunications operator must, without undue delay, file a report of the correction of the fault or disturbance to FICORA. The report must be filed:

1. both by e-mail and telephone in case of a class A fault or disturbance, and

2. by e-mail or telephone in case of a class B fault or disturbance.

Section 13

Final report of a class A, B and C fault or disturbance to FICORA

A telecommunications operator must file a final report of a class A, B or C fault and disturbance primarily on a dedicated form within a week from the discovery of the fault or disturbance. The final report must contain the following:

1. the terminal effects of a fault or disturbance on the communications service;
2. the original reason for the fault or disturbance, and
3. other factors with effects on the management of a fault or disturbance situation.

In addition, the final report of a class A and B fault or disturbance must contain:

1. a clarification of the course of events (discovery of the situation and repair) and
2. how similar faults or disturbances will be prevented in the future.

The content of the final report must be based on the information available by the time the report is filed.

If the effects of a class C fault or disturbance on the operation of a communications service have not been removed within three days from the discovery of a fault or disturbance, the final report must contain a detailed and grounded clarification of why the repair of the operation of a communications service is delayed.

If the final report of a class A fault or disturbance is lacking the requested information, the telecommunications operator must complement the information without delay as soon as the operator has received it.

Section 14

Submittance of contact details to FICORA

A telecommunications operator must submit its contact details to FICORA annually during January. The details may be used by FICORA to request information from the telecommunications operator about communications networks and services in the event of faults or disturbances. FICORA must be informed of altered contact details without delay. The information must primarily be submitted on a dedicated form.

The contact information must contain the contact details of operator's network or service operation centres and persons responsible for notifying of faults and disturbances. The contact details must be submitted as per communications service.

Chapter 3**Notifying users**

Section 15

Notification threshold

A telecommunications operator must inform users of such faults and disturbances in their communications networks or services whose continuous duration exceeds 60 minutes and affects at least 250 users.

If the continuous duration of a fault or disturbance affecting a telephone service, SMS service or internet access service exceeds one week, the telecommunications operator must inform users of the fault or disturbance, although the fault would affect less than 250 users.

Section 16

Notifying of faults and disturbances on the internet and by telephone

A telecommunications operator must, without delay, inform of the faults and disturbances referred to in section 15(1) of this Regulation. The notification must be placed as text on the internet.

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A telecommunications operator must, without delay, inform of the faults and disturbances referred to in section 15(1) of this Regulation. The notification must be placed as map presentation on the internet, if:

1. the fault or disturbance affects a telephone service, SMS service, internet access service, network service in the digital terrestrial mass communications network or DVB-C network service, and
2. the map presentation is relevant and understandable in relation to the size of the user group, and nature and significance of a communications service.

The fault and disturbance information corresponding to sub-sections 1 and 2 must be accessible, without delay, to users by telephone at least during the opening hours of the telecommunications operator's call service.

The content of the notifications in accordance with sub-sections 1, 2 and 3 must be updated without delay if the information given on the effects of a fault or disturbance on users changes substantially.

A notification of disturbance in accordance with sub-section 1 must be made available to users on the internet at least for one month after the effects of a fault or disturbance have been removed.

Section 17

Notifying of faults and disturbances through direct customer contact

A telecommunications operator must inform of the faults and disturbances referred to in section 15(2) of this Regulation. If possible, the notification should be made through direct customer contact.

Section 18

Content of fault and disturbance notifications

The telecommunications operator's fault and disturbance notifications must at least contain:

1. which communications service the fault or disturbance affects;
2. how the use of the communications service is affected by the fault or disturbance;
3. what is the geographical effect of the fault or disturbance;

4. when the fault or disturbance has been discovered, and
5. when the effects of the fault or disturbance are estimated to be removed.

Notifications regarding TV and radio channels and their additional or ancillary services must additionally contain the following:

1. which mass communications network the fault or disturbance affects, and
2. which TV or radio channels the fault or disturbance affects;

Chapter 4 Statistics

Section 19

Statistics of faults and disturbances

A telecommunications operator must compile and maintain the following statistics on class D faults and disturbances with a continuous duration of at least 30 minutes:

1. Repair time of faults and disturbances reported by customers, as per communications service.
2. Repair time of faults and disturbances detected by the network management and which required repair measures, as per communications network or service component.
3. Original reasons for faults and disturbances detected by the network management and which required repair measures, as per communications network or service component.

Section 20

Transitional provisions and entry into force

This regulation enters into force on 1 February 2012 and will remain in force until further notice.

This Regulation repeals FICORA's regulation 57/2009M of 20 October 2009.

Chapter 3 of the Regulation will be applied as of 1 April 2012.

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The user notification as map presentation in accordance with section 16(2) of this Regulation must be implemented in mobile network services and digital terrestrial mass communications network services no later than 30 June 2012.

For fixed-line telephone and internet access services and cable television network services, an implementation plan and schedule must be drafted of the user notification as map presentation in accordance with section 16(2) of this Regulation no later than 31 December 2012 and the user notification must be implemented no later than 31 December 2013.

Section 21

Information and publication

This Regulation is included in the Series of Regulations issued by the Finnish Communications Regulatory Authority and it can be obtained from the FICORA Customer Service Office:

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